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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/659,241	09/11/2000	William Kopaciewicz	MCA-463	4651

7590 02/17/2004
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EXAMINER

LUDLOW, JAN M

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/659,241

Applicant(s)

KOPACIEWICZ ET AL.

Examiner

Jan M. Ludlow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/10/2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 31-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 31-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/11/2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. Claim 17 is objected to because of the following informalities: In line 1,

"A... devices," is improper. Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

3. A person shall be entitled to a patent unless –

4. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

7. Determining the scope and contents of the prior art.

8. Ascertaining the differences between the prior art and the claims at issue.

9. Resolving the level of ordinary skill in the pertinent art.

10. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1-7, 9-15, 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/37949, hereafter WO.

13. WO teaches a cast in place polymer matrix containing sorbent particles in pipet tips or multiwell plates (abstract). The claimed aspect ratio is taught (p. 11, lines 5-10). The matrix adheres to the housing (p. 11, line 18 and elsewhere). Matrices may be cast in an underdrain array having spouts as shown in Figure 5D which may be integrally formed or separately mounted to a reservoir array 10 (p. 14, lines 1-16). After casting in place, the housing may be cut to remove a "skin" resulting in the matrix being coterminous with at least one surface of the housing (p. 16, lines 8-19, Figure 2A).

14. WO fails to teach solid walls or matrix height less than or equal to the thickness in the multiwell embodiment.

15. It would have been obvious to make the walls of WO solid in order to permit flow only through the matrix and/or in order to make the pipet tip functional to draw fluids and/or to make the wells functional to hold liquid as was known in the art of pipet tips and multiwell plates. It would have been obvious to make the matrix height less than or equal to the thickness of the underdrain array or well array in order to use the exemplified method of making in which the housing is not described as being overfilled beyond capacity (p. 21, Ex. 5).

16. Claims 8, 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO as applied to claims above, and further in view of Fernwood.

17. WO fails to teach a collection reservoir, or matrix height equal to substrate/housing thickness.

18. Fernwood teaches a device having sample reservoirs 12, collection reservoirs 20, filtration substrate 13, and spouts 41 all fixed together by screws 26 and latches 30. **The substrate 13 can be the same size as shown, but be a non-porous sheet with porous circular regions corresponding to reservoirs 12 (col. 3, lines 25-30).** If the substrate is the same size as shown, then the filter portions are of the same thickness as the rest of the sheet, i.e., it would have been obvious to make the filter regions the same thickness as the non-porous sheet in order to make the alternative embodiment sheet 13 the same size as the sheet shown as taught by Fernwood. The non-porous portion of the sheet is analogous to the instant housing/substrate.

19. It would have been obvious to provide collection reservoirs in order to collect filtrate from sample wells and underdrains as taught by Fernwood. It would have been further obvious to fill the underdrain portion of WO containing the matrix (the underdrain being separately mounted to the sample reservoirs) in order to form a filtration device with filter matrix filling the filter matrix housing as taught by Fernwood.

20. Claims 1-20, 22-24, 31-34 are rejected under 35 U.S.C. 103(a) as being obvious over Fernwood et al. in view of WO.

21. Fernwood teaches a device having sample reservoirs 12, collection reservoirs 20, filtration substrate 13, and spouts 41 all fixed together by screws 26 and latches 30.

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The substrate 13 can be the same size as shown, but be a non-porous sheet with porous circular regions corresponding to reservoirs 12 (col. 3, lines 25-30). If the substrate is the same size as shown, then the filter portions are of the same thickness as the rest of the sheet, i.e., it would have been obvious to make the filter regions the same thickness as the non-porous sheet in order to make the alternative embodiment sheet 13 the same size as the sheet shown as taught by Fernwood. The non-porous portion of the sheet constitutes the instant housing. The filter regions can be adsorbents (col. 1, line 26) and exemplary filters are Teflon or Teflon with diatomaceous earth bound thereto (col. 5, line 66, col. 6, line 54). It is the examiner's position that adsorbent filters are inherently "functionalized" to be adsorbent. To the extent that the membranes taught by Fernwood are not inherently functionalized to be adsorbent, it would have been obvious to use functionalized adsorbent membranes in order to use known adsorbent membranes as taught. It is the examiner's position that the diatomaceous earth particles are entrapped in the porous matrix because they are bound. With respect to "self-retaining" in that Fernwood teaches that the porous regions are "contained" in the non-porous sheet, it is the examiner's position that they do not fall out. The surfaces of the non-porous sheet surrounding the porous portions constitute the instant solid walls. The membrane may be formed of any of a variety of materials (col. 5, lines 45-52).

22. Fernwood fails to teach the instant aspect ratio or adhesion.

23. The teachings of WO are given above.

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24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method of WO to cast polymeric matrices as the filter portions of the non-porous sheet of Fernwood because WO teaches that the matrices can be used for the same use as that of Fernwood and in a multiwell filtration device similar to that of Fernwood. It would have been obvious to use the aspect ratios of WO in order to provide a useful aspect ratio as taught by WO.

25. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fernwood in view of WO as applied to claims 17-19 above, and further in view of Bowers et al.

26. Fernwood fails to teach the sample reservoir and spout plate bonded to the filter substrate.

27. Bowers teaches a filtration system with sample reservoirs and an underdrain tray having spouts. The sample reservoirs are bonded to the underdrain tray with the filter 70 therebetween (col. 6, lines 1-11, Figure 10).

28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to bond the drain, filter and sample reservoirs of Fernwood together in order to provide hermetic sealing as taught by Bowers, if one were willing to forego the advantages of reusing the reservoir and drain plate with a new filter medium.

29. Applicant's arguments with respect to claims 1-24, 31-34 have been considered but are moot in view of the new ground(s) of rejection.

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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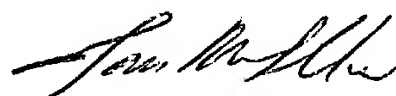
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

31. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jan M. Ludlow whose telephone number is (571) 272-1260. The examiner can normally be reached on Monday-Thursday, 11:30 am - 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jan M. Ludlow
Primary Examiner
Art Unit 1743

Jml
February 9, 2004